

REMARKS

Responsive to the Office Action mailed April 13, 2007, Applicants provide the following. Claims 15 and 22-24 have been amended and new claims 53-71 have been added. Claims 1-12, 16 and 26-52 were previously cancelled. Therefore, thirty-one (31) claims are pending in the application: Claims 13-15, 17-25 and 53-71. Reconsideration of claims 13-15 and 17-25 in view of the amendments above and remarks below and consideration of new claims 53-71 is respectfully requested.

By way of this amendment, Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone Thomas F. Lebens at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

Claim Rejections - 35 U.S.C. §103

1. Claims 13-15, 18-19, 21, 23 and 24 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 3,650,213 to Abbott et al. in view of U.S. Patent No. 3,053,185 to Oberfell et al. Applicants respectfully traverse these rejections.

The applied combination of Abbott and Oberfell fails to teach each limitation as recited in at least independent claim 13. More specifically, claim 13 recites in part “a propulsion block positioned proximate to the stabilizing fins and configured to maintain substantially all of a propulsion force behind the propulsion block and to evenly distribute the propulsion force to the projectile.” The applied combination fails to teach at least a propulsion block that maintains substantially all of a propulsion force behind the propulsion block, or a propulsion block that evenly distributes the propulsion force to the projectile.

The office action admits that Abbott fails to teach a propulsion block as claimed and instead relies on the “expandable wads” described in the Oberfell patent (Oberfell, e.g., col. 1, line 45). These expandable wads, however, cannot be equated to the propulsion block as claimed as these wads at least do not evenly distributing the propulsion force as recited in

pending claim 13. Instead, Oberfell only describes expandable wads that expand in attempts to seal the bore of a larger size shotgun barrel “minimizing the blow-by of gases” (col. 1, lines 27-28). Nowhere does Oberfell suggest or describe that the expanding wads evenly distribute the propulsion force. Instead, Oberfell only describes that the wads expand. Therefore, the Oberfell patent fails to teach that the expandable wads evenly distribute the propulsion force.

Further, Oberfell specifically describes that the wads are designed to compress in order to achieve the desired expanded diameter. For example, Oberfell specifically states that the wad 19 permits “an expansion of the diameter of wad 19 as much as about .25 inches” (col. 3, lines 55-56). As such, the wads and configurations of the wads described in Oberfell are pliable and deformable, and uneven forces exerted on the wads are going to be maintained due to the compressive nature and configurations of the wads. Therefore, Oberfell does not teach or suggest at least a propulsion block that “evenly distribute[s] the propulsion force to the projectile” as recited in claim 13. Similarly, the Abbott patent only describes a blanket 41 made of a “soft resilient elastic material” (Abbott, col. 2, lines 65-66) that is folded about the projectile, and thus, at least the folding would result in uneven surfaces and would similarly fail to evenly distribute the propulsion force. Further, Abbott describes that the blanket 41 provides varying amounts of ignitable propellant powder to extend along the casing between the casing and the blanket 41 and projectile resulting in different amounts of force on the projectile (see at least Abbott, col. 3, lines 6-11). Thus, Applicants respectfully submit that claim 13 is patentable over the applied combination.

Claims 14-15 and 17-25 depend from claim 13. Therefore, claims 14-15 and 17-25 are also patentable over the applied combination due at least to their dependency on allowable claim 13. Further, with respect to at least claim 21, applicants respectfully submit that the subject office action fails to address the limitations of claim 21 or to demonstrate where or how the combination of Abbott and Oberfell teach at least “a cartridge coupled with the second part wherein the cartridge includes means for launching the projectile” as recited in claim 21. Thus, Applicants respectfully submit that claim 21 is allowable over the applied combination.

Additionally, claim 19 recites in part that “the ignitable substance includes primer positioned within the shell such that the primer when ignited propels the propulsion block which forces the projectile from the shell.” Applicants respectfully submits that neither Abbott nor Oberfell teach or suggest an ignitable substance comprising primer that propels the propulsion block and thus the projectile from the shell. Alternatively, the primer 19 of Abbott is used to ignite a propellant powder charge 51 that in turn provides the propulsion force. The primer 19 of Abbott does not propel the projectile. Specifically, Abbott states that the “percussion primer 29, which may be of any conventional or desired construction for igniting the propellant powder charge 51 upon percussive firing of the primer 29” (Abbott, col. 1, lines 50-54, emphasis added). Abbott does not teach or suggest that the propellant powder charge 51 include primer. Thus, Abbott does not teach the ignitable substance as claimed. Similarly, the Oberfell patent does not teach an ignitable substance as claimed. Therefore, Applicants respectfully submit that claim 19 is also patentable over the applied combination.

Applicants respectfully submit that at least amended claim 24 is also patentable over the applied combination. For example, claim 24 recites that the “means for launching rapidly launches at least a sub-set of the plurality of projectiles within a limited time to rapidly contact a target along a path across the target during a single launching.” Support for the amendment to claim 24 is found, for example, in the description of at least FIGS. 32-33 and 37-39 on pages 49-50 and 53-57 of the application as filed. The Abbott and Oberfell patents do not teach rapidly firing a sub-set of projectiles during a single launching. Therefore, amended claim 24 is patentable over the applied combination.

Further, the office action generally indicates that “statements of intended use ... ‘adapted to’ ... clauses ... ‘wherein’ clauses ... do not serve to patentably distinguish the claimed structure over that of the reference” (office action, pages 3-4). Applicants, however, respectfully submit that the pending claims do not include “statements of intended use.” Further, the inclusion of wherein clauses of the pending claims are not ambiguous and do not suggest or make the limitations optional. Instead, the wherein clauses recited in the claims are definitive

limitations of the claims that must be taken into consideration when examining the claims. MPEP section 2106 specifically states “Language that suggests or makes optional but does not require steps ... or does not limit a claim ... The following are examples of language that may raise a question as to the limiting effect ... (C) ‘wherein’ clauses, or (D) ‘whereby’ clauses ... Office personnel must rely on the applicant’s disclosure to properly determine the meaning of ** the claims” (emphasis added). Again, Applicants respectfully submit that the pending claims do not suggest or make optional. When read within the meaning of the claims and the specification the claims clearly define further limitations that must be considered.

MPEP section 2173.05(g) further states “A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used” (emphasis added). Applicants respectfully submit that any functional limitations within the pending claims are limitations of the claims and must be evaluated and considered just like any other limitation of the claim.

The office action further generally cites MPEP sections 2114 and 2115 without further description of how these sections apply to the examination of the subject application. Again, Applicants respectfully submit that functional limitations must be evaluated and considered. Further, MPEP section 2114 is directed to claimed functionality inherent in the cited reference, see at least *In re Schreiber*, 44 USPQ2d 1429. MPEP section 2114 does not suggest that functional limitations are not actual limitations, that functional limitations do not have to be considered or that functional limitations cannot distinguish the claims over the cited references. Similarly, MPEP section 2115 is directed to the material worked upon by an apparatus being claimed, and does not suggest that functional language cannot be used to distinguish a claim over cited references. Therefore, Applicants respectfully submit that any functional limitations within the claims can be used to distinguish the claims over applied art and that functional limitations are limitations that “must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used” (MPEP section 2173.05(g), emphasis added).

2. Claims 20 and 25 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Abbott in view of Oberfell in further view of U.S. Patent No. 5,821,450 to Fedida. Applicants respectfully traverse these rejections. Claims 20 and 25 depend from at least claim 13. Applicants have demonstrated above that claim 13 is patentable over Abbott and Oberfell. The Fedida patent also fails to teach or suggest at least the even distribution of the propulsion force as recited in claim 13. Therefore, claim 13 is patentable over the combination of Abbott, Oberfell and Fedida, and thus, claims 20 and 25 are also patentable over the applied combination due at least to their dependency on allowable claim 13.

3. Claims 17 and 22 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Abbott in view of Oberfell in further view of U.S. Patent No. 3,865,038 to Barr. Applicants respectfully traverse these rejections. Claims 17 and 22 also depend from at least claim 13. Again, Applicants have demonstrated above that claim 13 is patentable over Abbott and Oberfell. Further, Barr does not teach or suggest at least the even distribution of the propulsion force as recited in claim 13. Therefore, claim 13 is patentable over the combination of Abbott, Oberfell and Barr, and thus, claims 20 and 25 are also patentable over the applied combination due at least to their dependency on allowable claim 13.

Further, the Barr patent does not teach a non-frangible nose section or a reusable first part. Instead, Barr specifically describes that the nose 21 is frangible stating “a suitable charge ... P for dispersal through rupture openings formed along grooves 27 on impact of the projectile with a target or other object. Alternatively ... the projectile may also be used without a charge of material in the rupturable cavity C, in which event the personnel impact deterrent utility of the soft rupturable projectile is employed” (Barr, col. 2, lines 58-68, emphasis added). Therefore, Barr instead describes a nose section that ruptures and is not reusable. Therefore, the applied combination fails to teach each limitation as recited in claims 17 and 22.

Furthermore, Abbott requires that the nose section 33 to rupture in order to release the payload within the projectile. For example, Abbott states that “[t]he projectile nose section

33 has suitable grooving formed therein, preferably radial V-grooves 33a ... in order to achieve ease of multi-directional rupture of the nose section on target impact ..." (Abbott, col. 2, lines 7-12, emphasis added). Replacing the frangible nose of Abbott with a reusable nose would be detrimental to the operation of the projectile described in Abbott as the fill material would not be adequately dispersed as defined in Abbott. Therefore, Abbott specifically teaches away from a non-frangible or reusable nose section. Thus, Applicants respectfully submit that claims 17 and 22 are patentable over the applied combination of Abbott, Oberfell and Barr.

New Claims

4. Newly submitted claims 53-71 are believed to be allowable because they are directed to that which is not shown or suggested in the cited references or their combinations. Support for the newly submitted claims can be found throughout the application as filed. More specifically, support for new claims 53-54 and 70 can be found at least at page 12, lines 3-10, page 18, line 1 and page 23, lines 8-12. Support for new claims 55-56 can be found at least on page 22, line 23 – page 24, line 27, and new claim 57 can be found at least on page 22, lines 14-22 and page 39, line 23 – page 42, line 22. Claim 58 is supported in the application as filed at least on page 23, lines 2-7. Support for claims 59-63 can be found at least on page 28, line 18 – page 29, line 21 of the application as filed. Support for claim 64 can be found at least on page 22, lines 14 – page 24, line 27 and page 39, line 23 – page 42, line 22.

Additionally, support for claim 65 can be found at least on page 57, lines 2-20. Support for claim 66 can be found at least on page 49, line 8 – page 52, line 17. Claims 67-68 is supported at least on page 26, line 17 – page 27, line 2. Claim 69 is supported at least on page 30, lines 1-8 and page 32, lines 11-29. Further, claim 70 is supported throughout the application as filed, for example, on page 6, line 28 – page 7, line 5, page, 18, lines 10-24, page 12, lines 3-10, page 18, line 1 and page 23, lines 8-12. Similarly, claim 71 is supported throughout the application as filed, including for example, page 22, line 23 – page 24, line 27.

Claims 53-71 are patentable over the applied references and their combinations because the applied references fail to teach each limitation as recited in claims 51-73. Further,

claims 53-69 depend from claim 13, which was shown above to be patentable over the applied references, and thus, claims 53-69 are also patentable due at least to their dependency on claim 13. Additionally, Applicants respectfully submit that the applied references and their combinations fail to teach additional stabilizers as recited in claims 53-54 and 70, that the second part comprises a body portion removably secured with a tail portion or that the body portion comprises a tongue that mates with a receiving port of the tail portion as recited in claims 55-56, 64 and 71, a fill hole in the nose portion and a cooperated lid as recited in claim 57 and 64, a body portion comprising weakening features as recited in claim 58, a propulsion block that comprises a lip as recited in claim 59, a propulsion block comprising a plate and a plurality of rings as recited in claim 60 where the rings establish seals with the shell as recited in claim 61, a propulsion block comprising a flexible lip as recited in claim 62 or a plate that extends beyond a cylindrical portion of the propulsion block and establishes a seal with the shell as recited in claim 63. Further, the applied references fail to teach or suggest that a means for launching is further configured to launch a subsequent single projectile of the plurality of projectiles after the launching of the sub-set of the plurality of projectiles as recited in claim 65, a means for launching rapidly launches a sub-set of multiple projectiles of the plurality of projectiles within the limited time of about less than two seconds as recited in claim 66, a plurality of shells housing projectiles and an ignitable substance comprising only one or more primers that propels the projectile from the shell as recited in claim 67, that the primer(s) only ignitable substance launches projectiles at consistent projectile velocities as recited in claim 68, or a source of compressed gas that when released launches at least one of the plurality of projectiles as recited in claim 69.

Therefore, Applicants respectfully submit that new claims 53-71 are patentable over the applied references and their combinations.

No Claim Fees Believed Due

5. Applicants believe that the addition of claims 53-71 do not require the payment of additional claim fees as the application was originally filed with fifty-one (51) claims

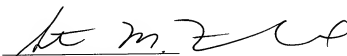
and the total number of claims currently pending including the new claims 53-71 is thirty-one (31). Further, the originally filed application included eight (8) independent claims and the currently pending claims only include three (3) independent claims. Therefore, Applicants do not believe that further claims fees are required.

CONCLUSION

Applicants submit that the above amendments and remarks place the pending claims in a condition for allowance. Therefore, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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